

eral of these are increasing rapidly. Recently two bright lads of our "Isaac Lea Chapter," Masters Doe and Gifford, brought me fine specimens of *Modiola plicatula* Lam. which they had found on the southwestern shore of San Francisco Bay. They also guided me to numerous colonies of *Urosalpinx cinereus* Say. on the Alameda shore, which they had naturally mistaken for the native *Ocenebra circumtexta* Stearns. They showed me several dead valves of *Venus mercenaria* Linn. which they had picked up on the same shore, but of which they had not been able to find living specimens. We cannot, therefore, certainly add this species to Mr. Stearns' list, but it is quite probable that living forms of the same will soon be found in deeper water.

Of the land species included with the twelve, two at least are becoming quite common. *Zonites cellarius* Müll. appeared abundantly the past season in the college garden, and *Helix aspersa* Müll. I have artificially propagated with much success, using a frame like a board-covered hot-bed, and feeding with cabbage leaves and similar vegetables. I have now introduced several native species into the frame and am awaiting the spring-time with much interest. *Helix californiensis* Lea does not thrive, as it evidently sighs for the sands of Monterey and the toothsome rattle-weed; but its near neighbor, *Helix dupetithouarsii* Desh., from Cypress Point, seems quite at home, and is as happy as if it were shaded by the venerable trees on that rocky promontory. Possibly it is because the frame is sheltered by a hedge of tall cypresses, lineal descendants from the trees on Cypress Point. I have often wished that the long and cumbrous name of this species could be changed to the short and highly-suggestive one, *Helix cupressa*, the cypress snail. But I suppose that the law of priority is like the law of the Medes and Persians, "which altereth not."

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NOTICES OF NEW JAPANESE LAND SNAILS.

BY HENRY A. PILSBRY.

Clausilia Hiraseana n. sp. A *Megalophædusa* with the size and general form of *Cl. japonica*, but *strongly sculptured with rib-striae*, far coarser than in any other known Japanese species. The sub-

columellar lamella is immersed and there are four strong palatal plicæ. Length 29, diam. 6 mm. Okinoshima, prov. Tosa (Y. Hirase).

Trishoplita Smithiana n. sp. Shell about the size and color of *T. goodwini* (Smith), but much more depressed, the spire low, convexly conic, whorls $5\frac{1}{3}$, the last angular at the periphery, descending in front; sculpture of slight growth-wrinkles and extremely fine, crowded spiral striæ. Aperture transversely oval, oblique; peristome thin, expanded, reflexed below, the margins approaching, parted by a parietal wall in length about one-fifth the circumference of the peristome. Umbilicus open. Alt. 8, diam. 13, width of umbilicus 2 mm. Arakura, prov. Tosa (Mr. Hirase). Much more depressed than *T. goodwini*, with lower spire and wider umbilicus. named for Mr. E. A. SMITH, who has given us several valuable papers upon Japanese mollusks.

Ganesella myomphala var. *omphalodes* n. v. Similar to *G. myomphala* in color and texture, but much depressed and openly umbilicate, the columellar lip but slightly overhanging the umbilicus. Alt. 19, diam. 32, width of umbilicus 3 mm. Omikado, prov. Inaba (Mr. Y. Hirase). Specimens in the collection of Mr. Addison Gulick show that in true *myomphala* the umbilicus is not always wholly closed, but, unlike this variety, the columellar lip is flattened and spreading.

Ganesella Wiegmanniana n. sp. Shell deeply and (for the genus) openly umbilicate, much depressed, thick lens-shaped, angular at the periphery, encircled by a faint reddish-brown band above the periphery, surface somewhat glossy, sculptured with oblique growth-wrinkles, but without spiral striæ other than a few rather coarse, irregularly-developed spirals sometimes visible on the base. Spire low, convexly conoid; whorls $5\frac{1}{2}$, moderately convex, the last angular at the periphery, somewhat convex beneath, but slightly descending in front, more or less constricted behind the lip. Aperture oblique, irregularly lunate-oval, the peristome white, narrowly expanded, thickened within, the basal margin straightened, thickened or obsoletely toothed in the middle; columellar end dilated, slightly overhanging the umbilicus.

Alt. 11, diam. $18\frac{1}{2}$ to $20\frac{1}{2}$ mm.; width of umbilicus 2 mm.

Kochi, prov. Tosa (Y. Hirase).

This species is clearly distinct from the strongly carinated form of

G. japonica called *patruelis* or *tabuensis* by some authors, but which is probably not really that species. The much depressed form like a thick lens, the open umbilicus and want of spiral striae are its more prominent features. It is named in honor of FRIEDRICH WIEGMANN, of Jena, author of numerous and valuable works on the anatomy of land snails.

A NEW LYROPECTEN.

BY W. H. DALL.¹

The group of Pectinidæ named by Conrad *Lyropecten*, of which *P. Heermanni* Conrad is the type, is known to have its precursors in the Oligocene, to be in its developed form characteristic of the Miocene of the Northern Hemisphere on both sides of the Atlantic, and to be represented in succeeding horizons only by degenerate types which can hardly be referred to the same section of the genus, though apparently descended from it.

The Pacific coast species hitherto known are *P. Heermanni* Conrad, 1855 (+ *P. estrellanum* Conrad, 1856, not 1857); *P. magnolia* Conrad, 1857 (+ *P. crassicardo* Conrad, 1862). The first mentioned is a species of moderate size with no analogue in the Atlantic Miocene; its exact horizon is still doubtful. The second, which corresponds in the West American fauna to *P. Jeffersonius* Say is found in the upper or San Pablo horizon of California. From the still newer (?) horizon of Rio Dell on the Eel River, California, Mr. J. S. Diller of the U. S. Geological Survey has obtained a new form of which this preliminary notice is given, not only as a new species of interest but as one of the largest species of *Pecten* yet known. It will be illustrated later in the Survey publications. It is the analogue of *P. Madisonius* Say.

Pecten (*Lyropecten*) *Dilleri* n. sp.

Shell large, rather compressed, nearly orbicular with a relatively short, straight hinge-line, dorsally rectangular, nearly smooth, subequal ears, the posterior with three small riblets; a well marked though shallow byssal fold; and moderately thick valves. The right valve is somewhat more convex and strongly sculptured, bear-

¹ By permission of the Director of the U. S. Geological Survey.